

REMARKS

Applicants respectfully request further examination and reconsideration in view of the and arguments set forth fully below. Claims 38-40, 42, 44-72 and 108-111 were pending in this application. Claims 1-37, 41, 43, and 73-107 are canceled. Claims 44-48 and 51-72 had been withdrawn as depending on a non-elected species. By the above amendments, claim 39 is withdrawn as depending on a non-elected species. Claims 38-40, 42, 44-72 and 108-111 are currently pending in this application.

In the Office Action, the Examiner states that the reply on August 25, 2008 is not fully responsive to the prior Office Action. Specifically, the Applicants has failed to indicate whether or not newly added claims 110 and 111 (as well as the various claims now dependent therefrom) are or are readable on the elected first species. For the reasons argued below, the Applicants indicates that the Claims 110 and 111 and the claims depending therefrom are readable on the first species group.

Species Group I reads from:

“[i]ncludes a heat exchanger thermally coupled to the device where at least a portion of the heat exchanger thermally coupled to the device is filled with a thermal capacitance medium and either one of the pump, and the fan or both of the pump and the fan are controlled such that the temperature value of the device is maintained below a maximum allowable temperature.”

Independent Claim 110 is a generic claim readable on Group I. Claim 110 is a method embodiment of the apparatus embodied in species Group I. The claim is for a method of controlling a fluid flow rate (the pump) and an air flow rate (the fan) for cooling (heat exchanger) at least one device (the device) in a cooling system. The cooling system comprises at least one pump (the pump), a heat rejector (the heat exchanger), a heat exchanger mechanically thermally coupled with the at least one device (the heat exchanger thermally coupled to the device), and a thermally conductive fluid (a thermal capacitance medium). The method comprises of the steps of, measuring a temperature, wherein the at least one sensor is a first temperature sensor coupled to the heater exchanger (the temperature value of the device is maintained). In another step, controlling a fluid flow rate and an air flow rate based on the first temperature such that the first

temperature is maintained below a maximum allowable temperature (temperature value of the device is maintained below a maximum allowable temperature), where a controller controls the at least one fan and the at least one pump to set the fluid flow rate and the air flow rate (the pump and the fan or both of the pump and the fan are controlled). Accordingly Claim 110 reads upon the species of Group I.

Claim 108 depends from claim 110 and contains a limitation of how the device is maintained below a maximum allowable temperature; “[w]herein at least one additional temperature sensor measures at least one additional temperature value in the cooling system.” Accordingly, claim 108 reads upon the species of Group I.

Claim 109 contains the limitation of “[t]he internal flow regions comprise microchannels” which comprise a limitation on the heat exchanger. Accordingly, claim 108 reads upon the species of Group I.

Claim 111 incorporated the limitation “[o]f measuring the temperature of the ambient air around the heat rejector, wherein the at least one additional temperature sensor measures an ambient air temperature around the heat rejector and wherein the controlling of the fluid flow rate and the air flow rate is further based on the measured ambient air temperature.” These limitations corresponds to the control of the temperature value of the device and accordingly, read upon the species of Group I.

Claim 38 reads upon the species of Group I. Claim 38 includes a limitation of a flow rate sensor and controlling a flow rate which is a limitation of controlling the pump. Accordingly, these limitations read upon the species of Group I.

Claim 40 reads upon the species of Group I. Claim 38 incorporates a device limitation being a device that is an electronic circuit. Accordingly Claim 40 reads upon the species of Group I.

Claim 42 incorporates a limitation to the heat exchanger, an element of the species of Group I, where the heat exchanger contains internal flow regions for distributing fluid. Accordingly Claim 42 reads upon the species of Group I.

Claim 49 incorporates the limitation of measuring the temperature of the ambient air around the device, as part of the controlling of the fluid flow rate and the air flow rate based on the measured ambient air temperature. This limitation corresponds controlling a pump as found specified in the species of Group I. Accordingly there limitation of Claim 49 read upon the species of Group I.

Claim 50 incorporates the limitation of measuring the temperature of the fluid within the

cooling loop, wherein the at least one additional temperature sensor measures the fluid temperature at a point in the cooling loop. This limitation corresponds controlling a pump and controlling the fan as found specified in the species of Group I. Accordingly there limitation of Claim 50 read upon the species of Group I.

CONCLUSION

The Applicants respectfully request examination and reconsideration in view of the amendments above and remarks above. Following the above amendments, claims 37-40, 42, 44-72, and 108-111 are currently pending. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

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